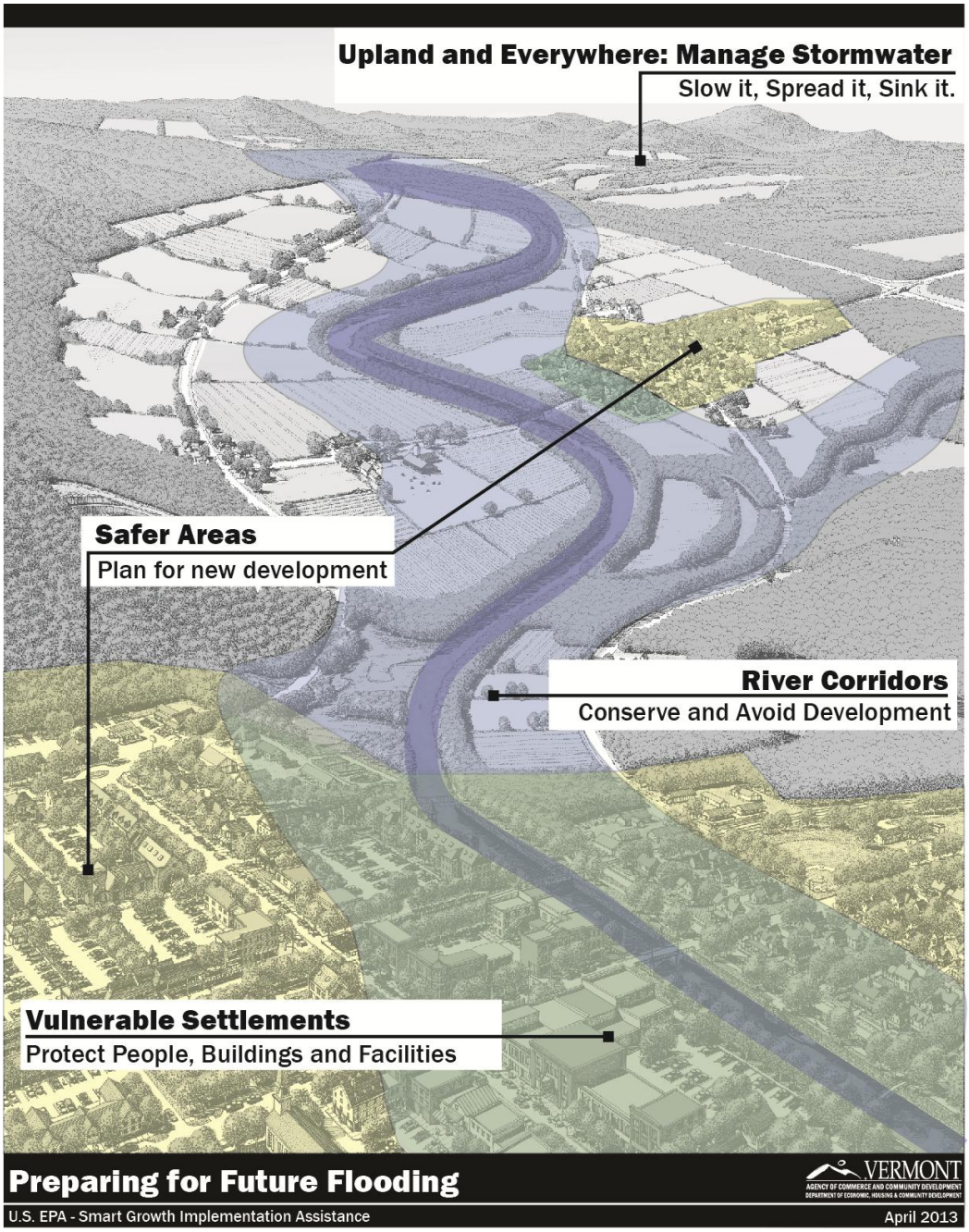
Planning for Floods in the Mad River Valley and Beyond

Overview

When the deluge from tropical storm Irene rampaged through the villages of the Mad River Valley in 2011, it wasn't the first time they had experienced serious flood damage. After all, the Mad River carried that name for a reason. Yet the timeless appeal of the historic riverfront villages of Warren, Waitsfield and Moretown derives in part from the very proximity to the Mad River. So despite danger and damage, businesses and residents returned to rebuild and start anew after each flood. In the aftermath of Irene, the Mad River communities began to ask if there might be a better way to recover and to prepare for a likely future of increased flooding. Through a valley-wide conversation and support from state agencies collaborating with federal partners, the community helped create a decision-making framework that can be used by flood-prone villages and downtowns statewide.



Challenge

Like the Mad River Valley settlements, many of Vermont's thriving villages and downtowns lie next to rivers (historically, to take advantage of water power) and thus vulnerable to damage from floods. The local, regional and state policies that support reinvestment and growth in and around Vermont's historic centers conflict with the very real need to improve public safety and to reduce damage from flooding. Solutions can be hard to achieve because they often require actions that go beyond the boundaries of individual property owners and municipalities to involve whole watersheds. Coordinating this work can be further challenged by the various and sometimes conflicting approaches of state and federal agencies that fund and regulate local and individual flood recovery and hazard mitigation.

Solution

With help from Mad River Valley Planning District and other local and regional organizations, meetings were held in the Mad River Valley to hear directly from local leaders and citizens on ways to prepare for future flooding. With expert help from EPA Smart Growth Implementation Assistance (SGIA) and related FEMA support, as well as coordination between state agencies, those conversations were used to create the following framework for discussing watershed-wide decision-making to reduce damage from flooding.

River Corridors – Conserve and Avoid Development

Rivers need room to move and to flood. Strategies to avoid damage include restoration of floodplains through removal of berms and levees and preventing new development along rivers and floodplains through regulation, land conservation and buyouts of flood prone structures.

Vulnerable Settlements – Protect People, Buildings and Facilities

In built-up areas, especially Vermont's pedestrian-friendly, multi-use downtowns and villages, ensure public safety and flood preparedness, make strategic investments in structural protection (dams, dikes, etc.), avoid siting critical facilities in harm's way and prevent storage of valuables in basements and other flood prone locations.

Safer Areas – Plan for New Development

Identify suitable locations outside the river corridor and floodplain where new development and any critical facilities can be located. For new development conduct detailed planning on the form development should take, base investment and regulatory policies on that vision and remove regulatory and financial barriers to encourage new development in those locations.

Upland and Everywhere – Manage Stormwater (Slow it, Spread it, Sink it)

On the mountains, hillsides and everywhere that rain falls, use every available strategy to retain water and prevent runoff to reduce downstream flooding. Avoid development on steep slopes and manage runoff from steep roads and driveways. Encouraging infiltration of stormwater also helps recharge aquifers for those periods of drought expected to increase along with severe flooding.

Results

In 2013 the legislature enacted a new requirement for local and regional plans – that all include a flood resilience element. The framework developed through this project for addressing future flooding, grounded in the Mad River Valley experience, will help communities prepare for the flooding likely to continue in our historic riverfront villages and downtowns.